F I G. 1

F I G. 2
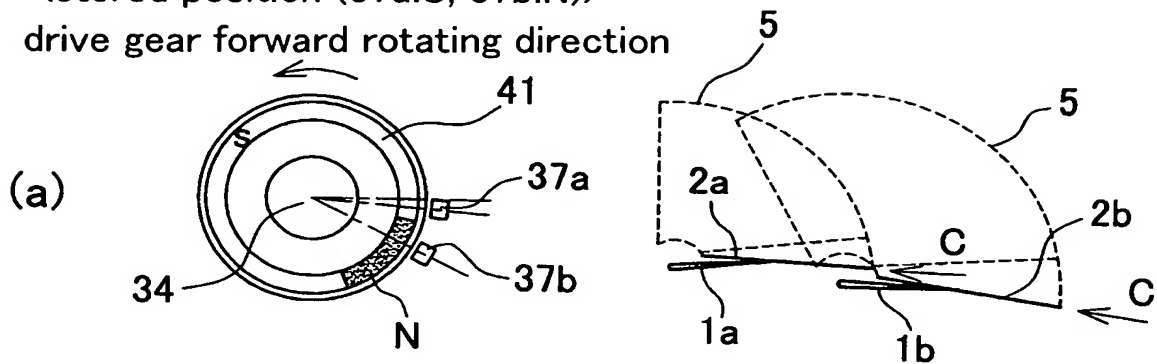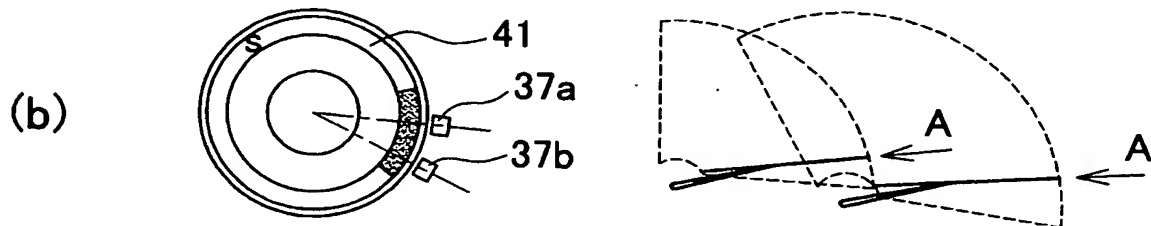
F I G. 3

drive gear forward rotating direction

(a)

41
37a
37b
34
N
S
5
5
2a
2b
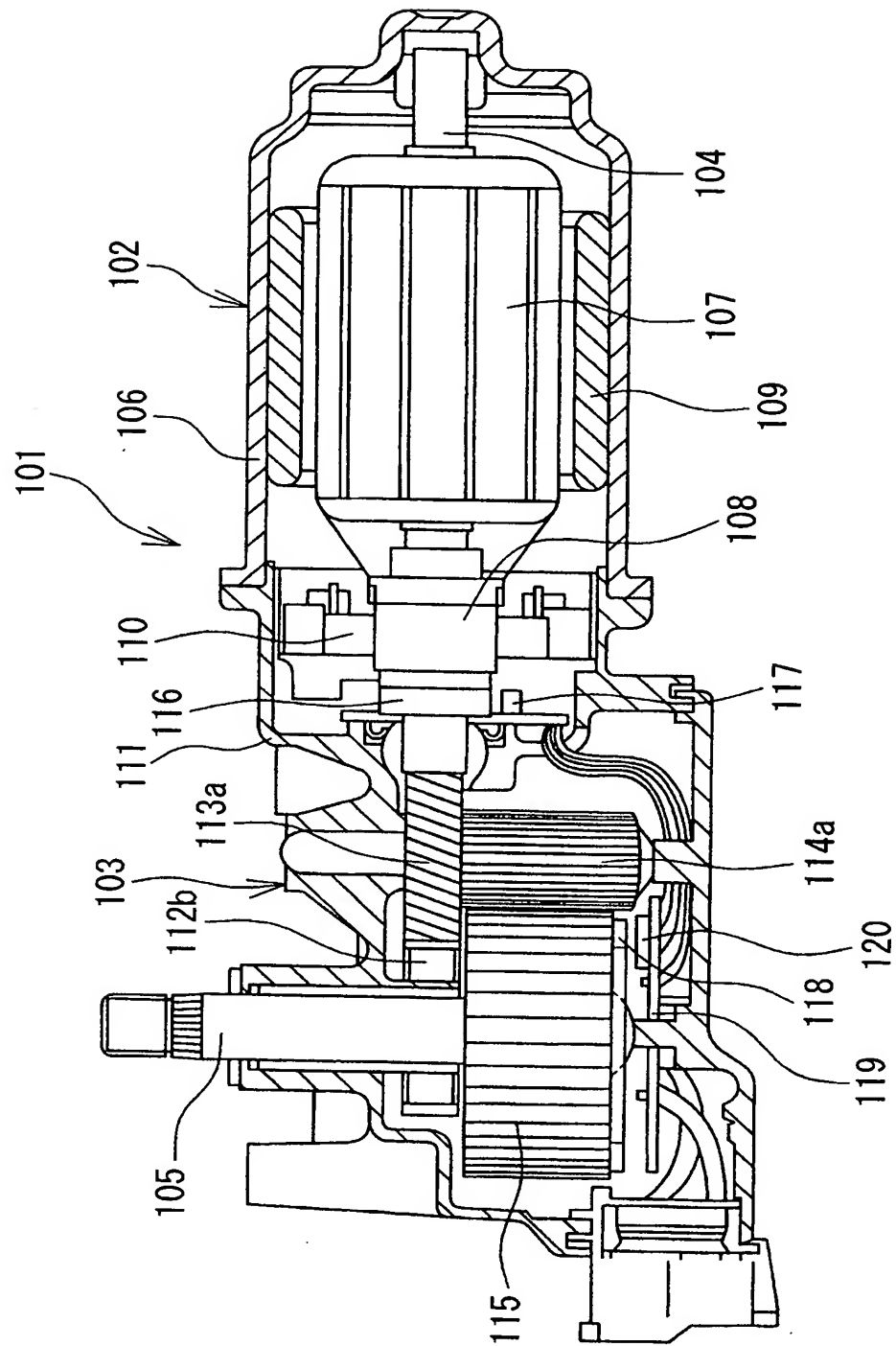C
C
C
1a
1b

<lower reversal position (37a:N, 37b:N)>

(b)

41
37a
37b
S
A
A

<origin position (37a:forward rotation N →S,

reverse rotation S→N, 37b:S)>

(c)

N
41
37a
37b
S
O
O

<upper reversal position

(37a:S, 37b:S)>

(d)

41
N
37a
37b
S
B B
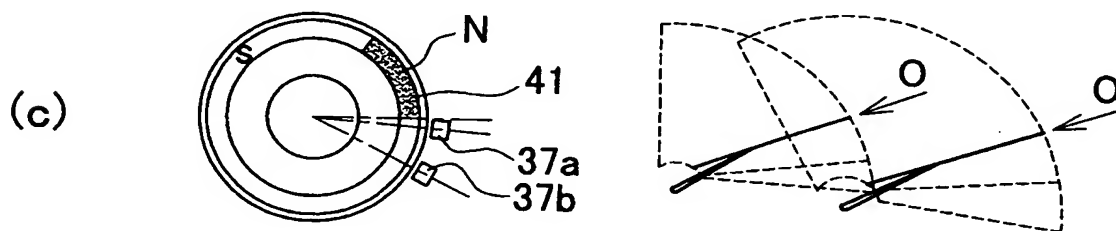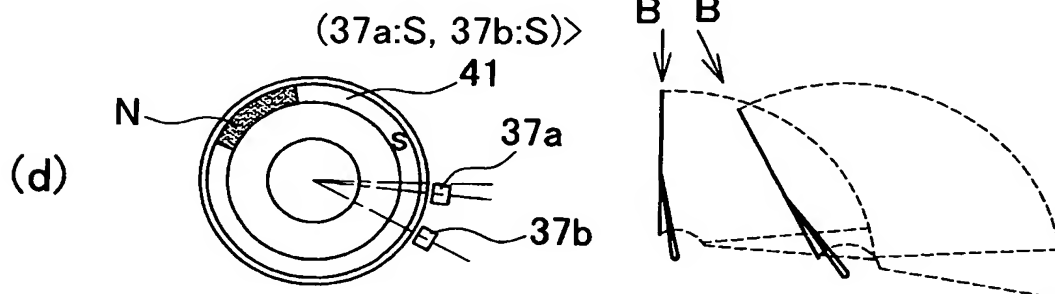
F I G.4

	Hall IC 37a (when rotating forward)	(when rotating backward)	Hall IC 37b
stored position	S		N
lower reversal position	N		N
origin position reset	N→S or S→N		S
to upper reversal position	S		S

F I G.5
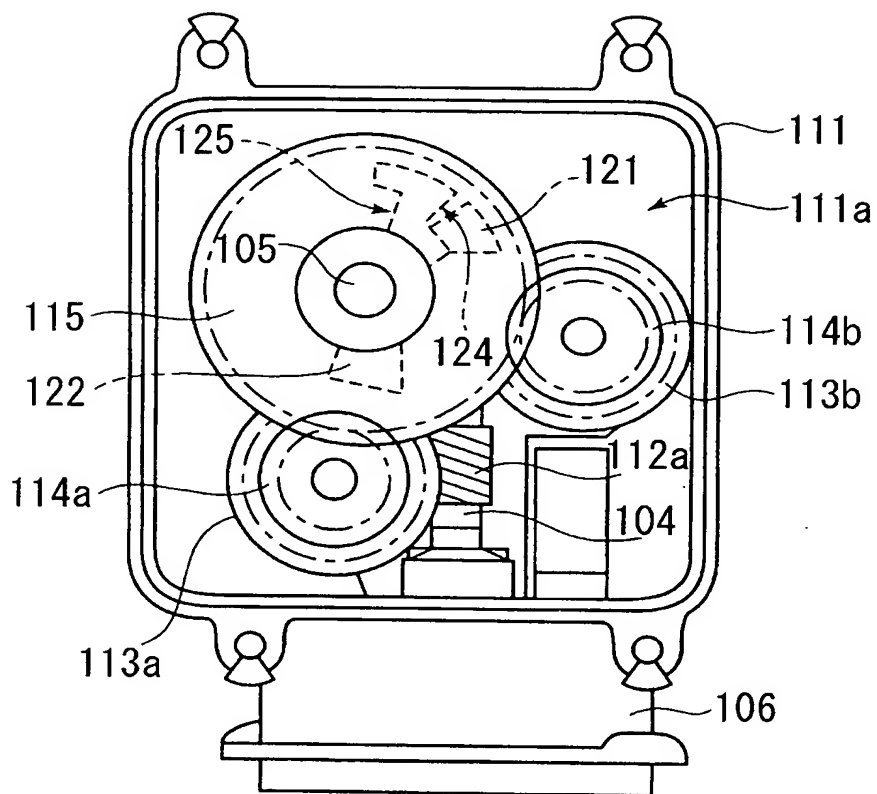
F I G. 6
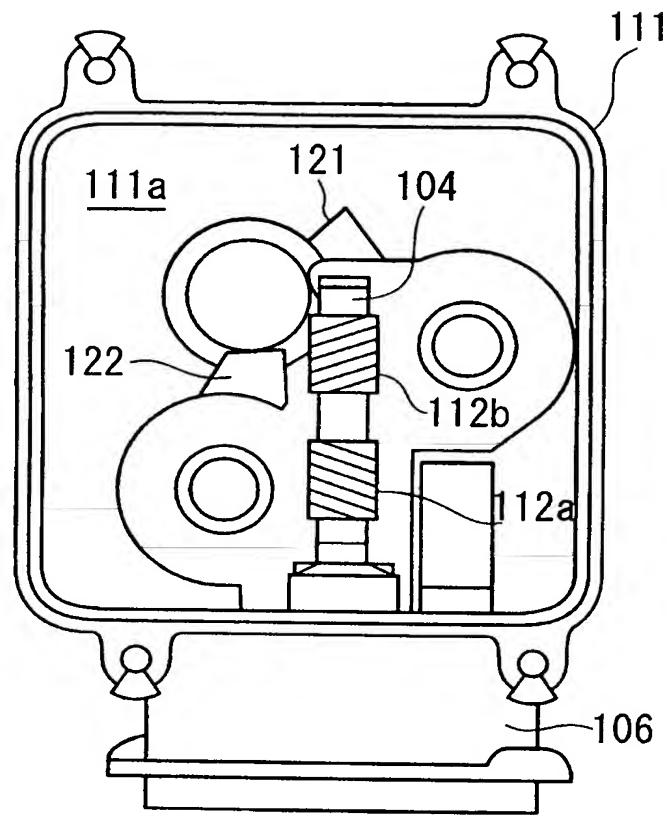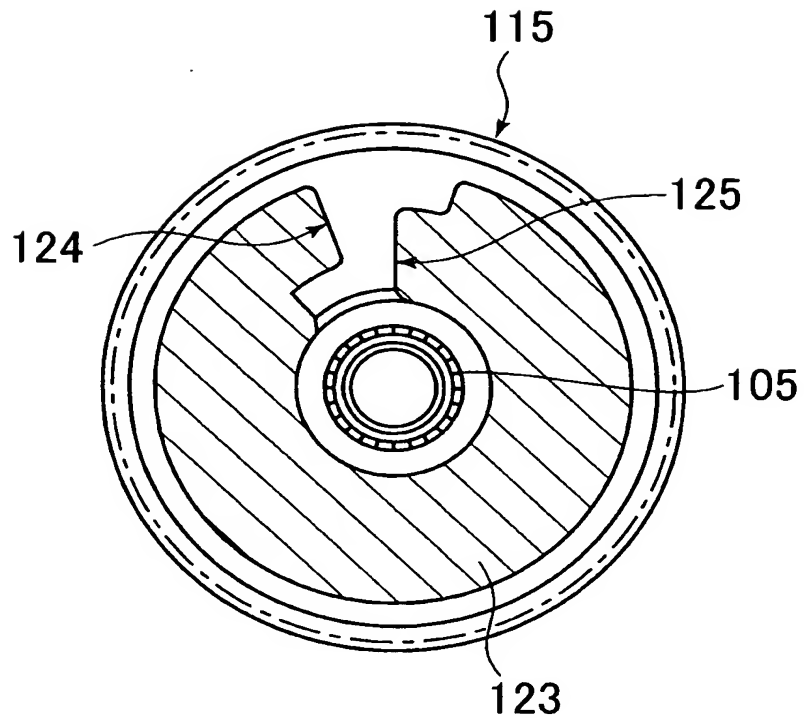
F I G. 7

F I G. 8

F I G . 9

17A(17)

A

B

17B(17)

4

N

S N
N S
S N

16

A

B

1 cycle

F I G . 1 0

upper limit
position Y

upper reversal
position B

blade movement
(in ordinary operation)

wiping range
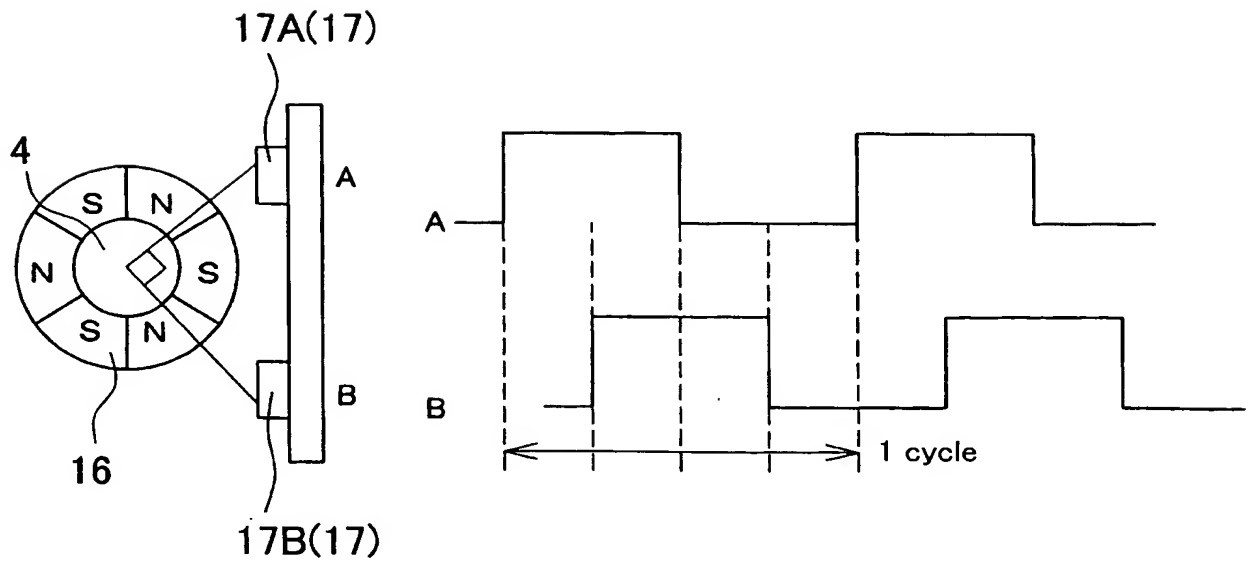
origin position O
lower reversal position A

stored position C
lower limit position X

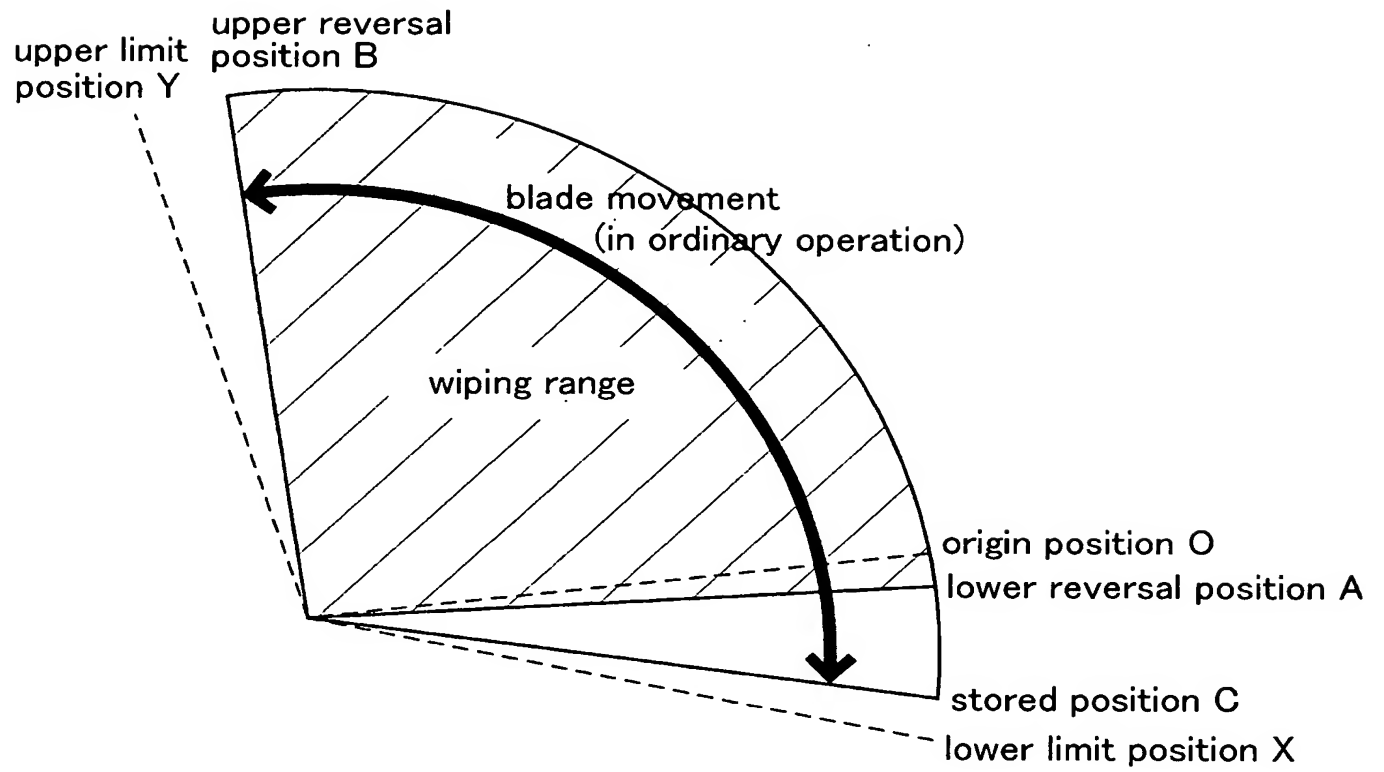# F I G. 1 1

<stored position (120:S)>

drive gear forward rotating direction

(a)

118
N
120
105
S

C
C
X
X

<lower reversal position (120:S)>

(b)

118
N
120
S

A
A
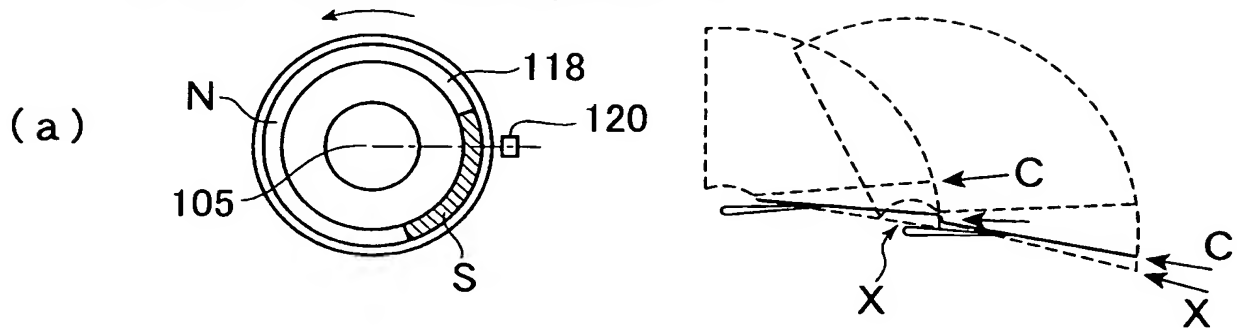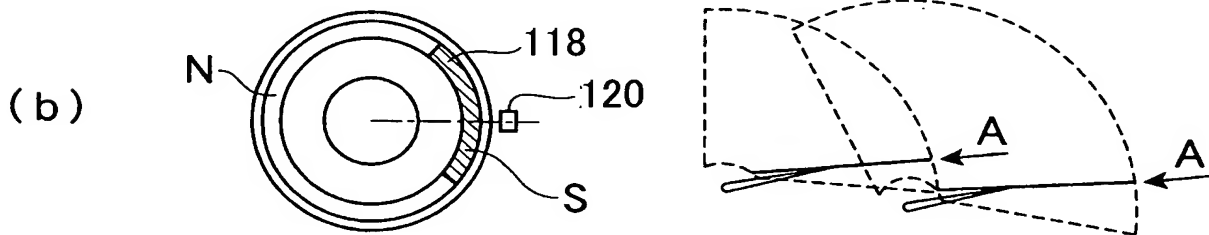
<origin position
(120:forward rotation N→S
reverse rotation S→N)>

(c)

S 118
N
120

O
O

<upper reversal position (120:N)> B B

(d)
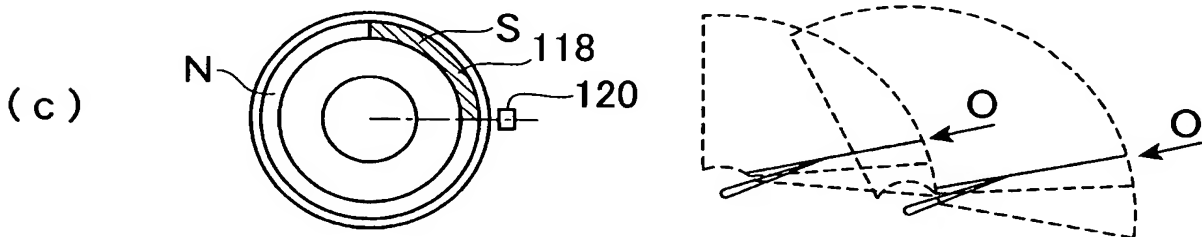
118
S
120
N
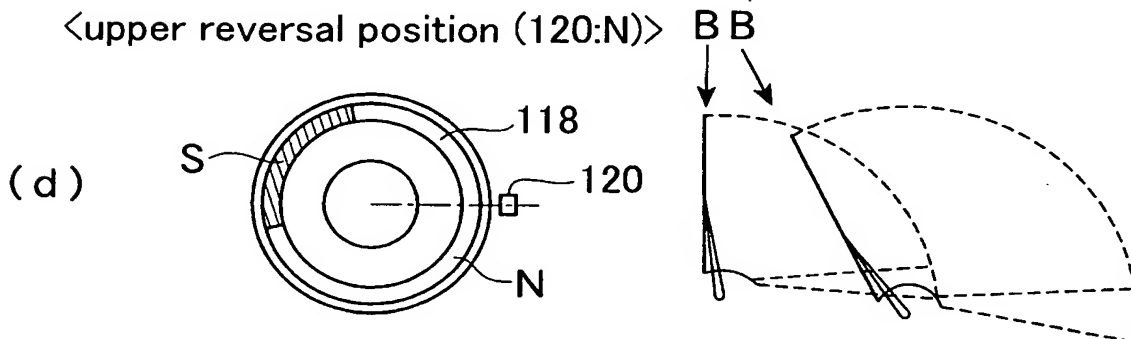
FIG. 12

	Hall IC 20
lower limit position X	S
stored position C	S
lower reversal position A	S
origin position O	S ⇔ N
origin position O to upper reversal position B	N

FIG.13

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FIG.14